

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) ~~[[An]]~~ A server apparatus, comprising:

a first sharing unit that shares a print environment thereof with other apparatuses on a network, wherein the first sharing unit includes~~[[:]]~~

a connection management unit that manages the connecting of the first sharing unit to a second sharing unit of ~~another~~ a second server apparatus on the network, the network including at least one print server and at least one printer in addition to the second server apparatus; and

a transfer unit that transfers at least one of ~~reservation~~ information of a print reservation and a document related to ~~[[a]]~~ the print reservation to the second sharing unit of the second server apparatus.

2. (Currently Amended) The apparatus as claimed in claim 1, wherein the connection management unit adds connection data related to the second sharing unit to service data ~~including~~ indicating other sharing units in the network that are connected to the first sharing unit, in response to a connection request from the second sharing unit.

3. (Currently Amended) The apparatus as claimed in claim 1, wherein the connection management unit deletes connection data related to the second sharing unit ~~[[to]]~~ from service data ~~including~~ indicating other sharing units that are connected to the first sharing unit in response to a disconnection request from the second sharing unit.

4. (Currently Amended) The apparatus as claimed in claim 2, wherein the connection data related to the second sharing unit added to the service data are managed as one of upper

level data, same level data, and lower level data, ~~depending on~~ which indicates a hierarchical relation relationship between the first sharing unit and the second sharing unit within the network.

5. (Original) The apparatus as claimed in claim 2, further comprising:
a service data storage unit that stores the service data.

6. (Original) The apparatus as claimed in claim 2, wherein the first sharing unit further comprises:
an acquisition unit that acquires the service data from the second sharing unit.

7. (Original) The apparatus as claimed in claim 1, wherein the first sharing unit further comprises:
a consistency check unit that checks consistency of a connection state in which the second sharing unit is connected to the first sharing unit and a disconnection state in which the second sharing unit is disconnected from the first sharing unit.

8. (Original) The apparatus as claimed in claim 1, further comprising:
a reservation data storage unit that stores the reservation information and the document.

9. (Original) The apparatus as claimed in claim 1, further comprising:
a document acquisition unit that acquires the document.

10. (Original) The apparatus as claimed in claim 1, further comprising:

a document management service unit that provides a service for managing the document.

11. (Original) The apparatus as claimed in claim 1, further comprising:
a document storage unit that stores the document.

12. (Original) The apparatus as claimed in claim 1, further comprising:
a print service unit that provides service related to printing.

13. (Original) The apparatus as claimed in claim 1, further comprising:
a print unit that prints the document.

14. (Currently Amended) A method of providing a sharing service in which a first sharing unit shares a print environment thereof with a second sharing unit, the first and second sharing units being provided in respective servers on a network, the network including at least one print server and at least one printer, the method comprising the steps of:
managing the connecting and the disconnecting of the second sharing unit; and
transferring, over the network, at least one of ~~reservation~~ information of a print reservation and a document related to ~~[[a]]~~ the print reservation to the second sharing unit.

15. (Original) The method as claimed in claim 14, further comprising the step of:
adding data related to the second sharing unit to service data including data related to other sharing units to which the first sharing unit can refer, in response to a connection request from the second sharing unit.

16. (Original) The method as claimed in claim 14, further comprising the step of:

deleting data related to the second sharing unit from service data including data related to other sharing units to which the first sharing unit can refer, in response to a disconnection request from the second sharing unit.

17. (Currently Amended) The method as claimed in claim 15, wherein the data related to the second sharing unit added to the service data are managed as one of upper level data, same level data, and lower level data, which indicates a hierarchical relationship depending on a relation between the first sharing unit and the second sharing unit within the network.

18. (Original) The method as claimed in claim 14, further comprising the step of:

checking consistency of a connection state in which the second sharing unit is connected to the first sharing unit and a disconnection state in which the second sharing unit is disconnected from the first sharing unit.

19. (Currently Amended) A computer-readable medium storing a computer program that, when executed by a computer, causes ~~[[a]]~~ the computer to share a print environment thereof with ~~another~~ a second computer, ~~the computer program comprising by executing the~~ steps of:

managing connecting and disconnecting of the ~~[[other]]~~ second computer with the computer, the computer and the second computer being arranged on a network, the network including at least one print server and at least one printer; and

transferring, over the network, at least one of ~~reservation~~ information of a print reservation and a document related to ~~[[a]]~~ the print reservation to the second ~~other~~ computer.

20. (Currently Amended) The computer ~~program~~ readable-medium as claimed in claim 19, wherein the program further ~~comprising~~ comprises the step of:

adding data related to the other computer to service data including data related to third computers to which the computer can refer, in response to a connection request from the [[other]] second computer.

21. (Currently Amended) The computer ~~program~~ readable-medium as claimed in claim 19, wherein the program further ~~comprising~~ comprises the step of:

deleting data related to the ~~other~~ second computer from service data including data related to third computers to which the computer can refer, in response to a disconnection request from the other computer.

22. (Currently Amended) The computer ~~program~~ readable-medium as claimed in claim 20, wherein the data related to the [[other]] second computer added to the service data are managed as one of upper level data, same level data, and lower level data, which indicates a hierarchical relationship ~~depending on a relation~~ between the computer and the [[other]] second computer within the network.

23. (Currently Amended) The computer ~~program~~ readable-medium as claimed in claim 19, wherein the program further ~~comprising~~ comprises the step of:

checking consistency of a connection state in which the other computer is connected to the computer and a disconnection state in which the other computer is disconnected from the computer.

24. (Canceled)

25. (Withdrawn) An apparatus, comprising:

a first sharing unit that shares a print environment thereof with other apparatuses,
wherein

the first sharing unit includes:

a search unit that searches a print location; and

a transfer unit that transfers at least one of reservation information and a document
related to a print reservation to a second sharing unit.

26. (Withdrawn) The apparatus as claimed in claim 25, wherein

the search unit further comprises:

a route information acquisition unit that acquires route information about a route to
the print location.

27. (Withdrawn) The apparatus as claimed in claim 25, wherein

the search unit further comprises:

a service data acquisition unit that acquires service data including data about
referential relation between sharing units from a third sharing unit.

28. (Withdrawn) The apparatus as claimed in claim 25,

wherein

the reservation information includes document identification information for
identifying the document and document use permission information for being permitted to
use the document.

29. (Withdrawn) The apparatus as claimed in claim 25,
wherein

the reservation information includes print location identification information for
identifying the print location and route information to the print location.

30. (Withdrawn) The apparatus as claimed in claim 25, wherein

the reservation information includes printer identification information for identifying
a printer.

31. (Withdrawn) The apparatus as claimed in claim 25, wherein

the reservation information includes information about a print condition.

32. (Withdrawn) The apparatus as claimed in claim 25, wherein

the first sharing unit further comprises:

a data adding unit that adds, in response to a connection request from the second
sharing unit, data related to the second sharing unit to service data including sharing units
other than the first sharing unit to which the first sharing unit can refer.

33. (Withdrawn) The apparatus as claimed in claim 25, wherein

the first sharing unit further comprises:

a data deleting unit that deletes, in response to a disconnection request from the
second sharing unit, data related to the second sharing unit from the service data including
data related to sharing units other than the first sharing unit to which the first sharing unit can
refer.

34. (Withdrawn) The apparatus as claimed in claim 27,
wherein

the data related to the second sharing unit added to the service data are managed as one of upper level data, same level data, and lower level data depending on a relation between the first sharing unit and the second sharing unit.

35. (Withdrawn) The apparatus as claimed in claim 25, further comprising:

a service data storage unit that stores the service data including data related to a referential relation between the first sharing unit and other sharing units.

36. (Withdrawn) The apparatus as claimed in claim 25,
wherein

the first sharing unit further comprises:

a document acquisition unit that acquires the document.

37. (Withdrawn) The apparatus as claimed in claim 25,
wherein

the first sharing unit further comprises:

a printer data acquisition unit that acquires printer data.

38. (Withdrawn) The apparatus as claimed in claim 37,
wherein

the printer data are managed by a corresponding sharing unit that shares a print environment thereof with other apparatuses.

39. (Withdrawn) The apparatus as claimed in claim 37,
wherein
the printer data are managed by a print service providing unit that provides a print service.

40. (Withdrawn) The apparatus as claimed in claim 25,
wherein
the first sharing unit further comprises:
a function information acquisition unit that acquires function information of a printer.

41. (Withdrawn) The apparatus as claimed in claim 25, further comprising a data storage unit that stores at least one of reservation information and a document related to the print reservation.

42. (Withdrawn) The apparatus as claimed in claim 25, further comprising a document management service providing unit that manages the document.

43. (Withdrawn) The apparatus as claimed in claim 25, further comprising a document storage unit that stores the document.

44. (Withdrawn) The apparatus as claimed in claim 25, further comprising a print service providing unit that provides a print service.

45. (Withdrawn) The apparatus as claimed in claim 25, further comprising a print unit that prints the document.

46. (Withdrawn) A method of providing a sharing service in which a first sharing unit shares print environment thereof with a second sharing unit, the method comprising the steps of:

searching for a print location; and

transferring at least one of reservation information and a document related to a print reservation to the second sharing unit.

47. (Withdrawn) The method as claimed in claim 46,

wherein

the step of searching for the print location further comprises the step of acquiring route information of a route to the print location.

48. (Withdrawn) The method as claimed in claim 46,

wherein the step of searching for the print location further comprises the step of acquiring service data including data about referential relations between sharing units from a third sharing unit.

49. (Withdrawn) The method as claimed in claim 46,

wherein the reservation information includes document identification information for identifying the document and document use permission information for being permitted to use the document.

50. (Withdrawn) The apparatus as claimed in claim 46,
wherein
the reservation information includes print location identification information for
identifying the print location and route information to the print location.

51. (Withdrawn) The apparatus as claimed in claim 46,
wherein
the reservation information includes printer identification information for identifying
a printer.

52. (Withdrawn) The apparatus as claimed in claim 46,
wherein
the reservation information includes information about a print condition.

53. (Withdrawn) The method as claimed in claim 46,
wherein
the first sharing unit adds, in response to a connection request from the second sharing
unit, data related to the second sharing unit to service data including sharing units other than
the first sharing unit to which the first sharing unit can refer.

54. (Withdrawn) The method as claimed in claim 46,
wherein
the first sharing unit deletes, in response to a disconnection request from the second
sharing unit, data related to the second sharing unit from the service data including data

related to sharing units other than the first sharing unit to which the first sharing unit can refer.

55. (Withdrawn) The method as claimed in claim 46,

wherein

the data related to the second sharing unit added to the service data are managed as one of upper level data, same level data, and lower level data depending on a relation between the first sharing unit and the second sharing unit.

56. (Withdrawn) The method as claimed in claim 46, further comprising the step of acquiring the document.

57. (Withdrawn) The method as claimed in claim 46, further comprising the step of: acquiring printer data including data related to printers.

58. (Withdrawn) The method as claimed in claim 57,

wherein

the printer data are managed by a corresponding sharing unit that shares a print environment thereof with other apparatuses.

59. (Withdrawn) The method as claimed in claim 57,

wherein

the printer data are managed by a print service providing unit that provides a print service.

60. (Withdrawn) The method as claimed in claim 46, further comprising the step of:
acquiring function information of a printer.

61. (Withdrawn) The method as claimed in claim 46, further comprising the step of:
receiving a reservation request for a print reservation.

62. (Withdrawn) The method as claimed in claim 46, further comprising the step of
receiving a print request.

63. (Withdrawn) A computer program that causes a computer to share a print
environment thereof with another computer, the computer program comprising the steps of:
searching for a print location; and
transferring at least one of reservation information and a document related to a print
reservation to the other computer.

64. (Withdrawn) A computer readable recording medium that stores the computer
program as claimed in claim 63.

65. (Withdrawn) A service providing apparatus, comprising:
a screen data providing unit that provides data related to a screen to a user terminal in
response to a request from the user terminal; and
a print reservation request transmission unit that transmits a reservation request to a
print environment sharing service providing unit in response to the request from the user
terminal,
wherein

the service providing apparatus is included in a print environment sharing service providing system, the system further including:

at least one print environment sharing service providing unit including a print environment sharing service providing unit that provides a sharing service of a print environment; and

the user terminal.

66. (Withdrawn) The service providing apparatus as claimed in claim 65,
wherein

the screen is a document selection screen for selecting at least one of a print reservation and a document.

67. (Withdrawn) The service providing apparatus as claimed in claim 65,
wherein

the screen is a document overview screen that displays an overview of print reservations or documents to be printed.

68. (Withdrawn) The service providing apparatus, as claimed in claim 65,
wherein

the screen is a print location selection screen for selecting a print location.

69. (Withdrawn) The service providing apparatus as claimed in claim 65,
wherein

the screen is a map screen related to a print location.

70. (Withdrawn) The service providing apparatus as claimed in claim 65,
wherein
the screen is a printer selection screen for selecting a printer.

71. (Withdrawn) The service providing apparatus as claimed in claim 65,
wherein
the screen is a print condition selection screen for selecting a print condition.

72. (Withdrawn) The service providing apparatus as claimed in claim 65,
wherein
the print environment sharing service providing unit adds, in response to receipt of a
connection request from another print environment sharing service providing unit, data
related to the other print environment sharing service providing unit to service data including
data related to other print environment service providing units to which the print environment
sharing service providing unit can refer.

73. (Withdrawn) The service providing apparatus as claimed in claim 65,
wherein
the print environment sharing service providing unit deletes, in response to receipt of
a disconnection request from another print environment sharing service providing unit, data
related to the other print environment sharing service providing unit to service data including
data related to other print environment service providing units to which the print environment
sharing service providing unit can refer.

74. (Withdrawn) The service providing apparatus as claimed in claim 72,

wherein

the data related to the other sharing unit added to the service data are managed as one of upper level data, same level data, and lower level data depending on a relation between the print environment sharing service unit and the other print environment sharing service unit.

75. (Withdrawn) The service providing apparatus as claimed in claim 65, further comprising:

a service data acquisition unit that acquires, in response to a request from the user terminal, service data including data related to referential relations between print environment sharing service providing units from the print environment sharing service providing units.

76. (Withdrawn) The service providing apparatus as claimed in claim 65, further comprising:

a printer data acquisition unit that acquires, in response to receipt of a request from the user terminal, printer data including data related to printers to which the print environment sharing service providing unit can refer from the print environment sharing service providing unit.

77. (Withdrawn) The service providing apparatus as claimed in claim 65, further comprising:

a function information acquisition unit that acquires, in response to receipt of a request from the user terminal, function information related to functions of printers from the print environment sharing service providing unit.

78. (Withdrawn) The service providing apparatus as claimed in claim 65, further comprising:

a document use permission information acquisition unit that acquires, in response to receipt of a request from the user terminal, document use permission information for permitting the use of the document from a document management service providing unit that provides a service related to management of documents.

79. (Withdrawn) The service providing apparatus as claimed in claim 78, further comprising the document management service providing unit.

80. (Withdrawn) The service providing apparatus as claimed in claim 78, further comprising a document storage unit that stores the document.

81. (Withdrawn) The service providing apparatus as claimed in claim 65, further comprising:

a print start request transmitting unit that transmits, in response to receipt of a request from the user terminal, a request to start printing, to the print environment sharing service providing unit.

82. (Withdrawn) The service providing apparatus as claimed in claim 65, further comprising the print environment sharing service providing unit.

83. (Withdrawn) The service providing apparatus as claimed in claim 65, further comprising a print service providing unit that provides a print service.

84. (Withdrawn) The service providing unit as claimed in claim 65, further comprising a print unit.

85. (Withdrawn) A method of providing a service for sharing a print environment, comprising the steps of:

providing data related to a screen to a user terminal in response to a request from the user terminal; and

transmitting a reservation request to a print environment sharing service providing unit in response to the request from the user terminal,

wherein

the service providing apparatus is included in a print environment sharing service providing system, the system further including:

at least one print environment sharing service providing unit including a print environment sharing service providing unit that provides a sharing service of print environment; and

the user terminal.

86. (Withdrawn) The method as claimed in claim 85,

wherein

the screen is a document selection screen for selecting at least one of a print reservation and a document.

87. (Withdrawn) The method as claimed in claim 85,

wherein

the screen is a document overview screen that displays an overview of print reservations or documents to be printed.

88. (Withdrawn) The method as claimed in claim 85,
wherein
the screen is a print location selection screen for selecting a print location.

89. (Withdrawn) The method as claimed in claim 85,
wherein
the screen is a map screen related to a print location.

90. (Withdrawn) The method as claimed in claim 85,
wherein
the screen is a printer selection screen for selecting a printer.

91. (Withdrawn) The method as claimed in claim 85,
wherein
the screen is a print condition selection screen for selecting a print condition.

92. (Withdrawn) The apparatus as claimed in claim 85,
wherein
the print environment sharing service providing unit adds, in response to receipt of a connection request from another print environment sharing service providing unit, data related to the other print environment sharing service providing unit to service data including

data related to other print environment service providing units to which the print environment sharing service providing unit can refer.

93. (Withdrawn) The method as claimed in claim 85,
wherein

the print environment sharing service providing unit deletes, in response to receipt of a disconnection request from another print environment sharing service providing unit, data related to the other print environment sharing service providing unit to service data including data related to other print environment service providing units to which the print environment sharing service providing unit can refer.

94. (Withdrawn) The method as claimed in claim 92,
wherein

the data related to the other sharing unit added to the service data are managed as one of upper level data, same level data, and lower level data depending on a relation between the print environment sharing service unit and the other print environment sharing service unit.

95. (Withdrawn) The method as claimed in claim 85,
wherein

the service providing apparatus further comprises the print environment sharing service providing unit.

96. (Withdrawn) A computer program that causes a computer to perform the method as claimed in claim 85.

97. (Withdrawn) A computer readable recording medium that stores the computer program as claimed in claim 96.

98. (Withdrawn) The apparatus as claimed in claim 37, further comprising a printer data storage unit that stores the printer data.

99. (Withdrawn) The method as claimed in claim 46, further comprising the step of transmitting a reservation request about printing.

100. (Withdrawn) The method as claimed in claim 46, further comprising the step of transmitting a print request.

101. (Withdrawn) The service providing apparatus as claimed in claim 65, further comprising:

a document overview acquisition unit that acquires, in response to receipt of a request from the user terminal, information about a document overview from a document management service providing unit that provides a management service of a document.